

methylesterase, will form *in situ*, and thus be present, during the heating of the potatoes. The Office also argues that the origin of the pectinase enzyme is irrelevant as long as the enzyme is present during treatment of the potatoes. Applicants disagree with both assertions.

First, Example 3 of Applicants' specification shows that pectin methylesterase, when added exogenously to potato pieces, increased the crispiness of the potato pieces after deep frying over the untreated control. According to the Office's reasoning, in the untreated control, the formation of the pectin methylesterase *in situ* during the deep frying of the potatoes is sufficient to cause the observed result of improved crispiness. The results described in Example 3 are contrary to this reasoning. The treatment of the potato pieces with exogenous pectin methylesterase increased the crispiness of the potato pieces after deep frying over the untreated control, *i.e.*, with the pectin methylesterase produced *in situ*. The origin of the pectinase enzyme is not irrelevant because the control with the pectin methylesterase produced *in situ* does not provide the effect obtained by Applicants by adding exogenous pectin methylesterase.

Second, the pectin methylesterase released from the potatoes during the heating of the potatoes is an endogenous enzyme, not an exogenous enzyme. The term "endogenous" is defined by Webster's New World Dictionary, Third College Edition, New York, 1988, as "originating internally", while the term "exogenous" is defined as "originating externally". The pectin methylesterase of Fan *et al.* originates internally from the potatoes and, thus, constitutes an endogenous enzyme. In the instant claims, the pectinase originates externally and, thus, constitutes an exogenous enzyme.

Third, Applicants assert that Fan *et al.* teach away from treating a potato substance with an effective amount of an exogenous pectinase since there is no teaching or suggestion of using an effective amount of an exogenous pectinase. Example 3 of Applicants' specification, as discussed above, shows that pectin methylesterase, when added exogenously to potato pieces, increased the crispiness of the potato pieces after deep frying over the untreated control. These results were unexpected and surprising since the Fan *et al.* reference provided no such teaching or suggestion.

Consequently, Yamashita and Fan, alone or in combination, do not teach or suggest methods for producing a consumable product from potatoes, comprising: (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of a glucose oxidase, laccase, lipase, pectinase, pentosanase, protease, and transglutaminase, and (b) processing the enzyme-treated potato substance to produce a

potato product, as claimed herein.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

## **II. The Rejection of Claims 12 and 13 under 35 U.S.C. § 103**

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita (U.S. Patent No. 5,312,631) in view of Fan *et al.* (U.S. Patent No. 4,503,127), as applied to claims 1, 2, 4-8, 10, 11, 14, 16, 17, 20, 22, 24, 25, 35, and 39-43 above, and further in view of Judkins *et al.* (U.S. Patent No. 6,033,697), Rogols *et al.* (U.S. Patent No. 5,897,898), or Stevens *et al.* (U.S. Patent No. 5,965,189) for the reasons of record.

This rejection is respectfully traversed for the reasons of record and for the additional reasons discussed in Section I.

Yamashita, Fan *et al.*, Judkins *et al.*, Rogols *et al.*, and Stevens *et al.*, alone or in combination, do not teach or suggest methods for producing a consumable product from potatoes, comprising: (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of a glucose oxidase, laccase, lipase, pectinase, pentosanase, protease, and transglutaminase, and (b) processing the enzyme-treated potato substance to produce a potato product, and further comprising coating the potato substance with a starch and/or a hydrocolloid, as claimed herein. It was, therefore, improper to combine Yamashita and Fan *et al.* with Judkins *et al.*, Rogols *et al.*, or Stevens *et al.*.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

## **III. The Rejection of Claims 1, 2, 4, 5, 10, 11, 14, 16, 17, 20, 22, 24, 25, 35, and 39-43 under 35 U.S.C. § 103**

Claims 1, 2, 4, 5, 10, 11, 14, 16, 17, 20, 22, 24, 25, 35, and 39-43 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Roan (U.S. Patent No. 4,058,631, claim 1) in view of Fan *et al.* (U.S. Patent No. 4,503,127) for the reasons of record.

This rejection is respectfully traversed for the reasons of record and for the additional reasons discussed in Section I.

Roan and Fan *et al.*, alone or in combination, do not teach or suggest methods for producing a consumable product from potatoes, comprising: (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of a glucose oxidase, laccase, lipase, pectinase, pentosanase, protease, and transglutaminase, and (b) processing the enzyme-treated potato substance to produce a potato product, and further comprising coating the potato substance with a starch and/or a hydrocolloid, as claimed herein. It was, therefore, improper to combine Roan and Fan *et al.*

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

#### **IV. The Rejection of Claims 6-8 under 35 U.S.C. § 103**

Claims 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roan (U.S. Patent No. 4,058,631) in view of Fan *et al.* (U.S. Patent No. 4,503,127) as applied to claims 1, 2, 4, 5, 10, 11, 14, 16, 17, 20, 22, 24, 25, 35, and 39-43 above, and further in view of Yamashita for the reasons of record.

This rejection is respectfully traversed for the reasons of record and for the additional reasons discussed in Section I.

Roan, Fan *et al.*, and Yamashita, alone or in combination, do not teach or suggest methods for producing a consumable product from potatoes, comprising: (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of a glucose oxidase, laccase, lipase, pectinase, pentosanase, protease, and transglutaminase, and (b) processing the enzyme-treated potato substance to produce a potato product, as claimed herein. It was, therefore, improper to combine Roan, Fan *et al.*, and Yamashita.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

#### **V. The Rejection of Claims 12 and 13 under 35 U.S.C. § 103**

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roan (U.S. Patent No. 4,058,631) in view of Fan *et al.* (U.S. Patent No. 4,503,127), as applied to claims 1, 2, 4-8, 10, 11, 14, 16, 17, 20, 22, 24, 25, 35, and 39-43 above, and further in view of Judkins *et al.* (U.S. Patent No. 6,033,697), Rogols *et al.* (U.S. Patent No.

5,897,898), or Stevens *et al.* (U.S. Patent No. 5,965,189) for the reasons of record.

This rejection is respectfully traversed for the reasons of record and for the additional reasons discussed in Section I.

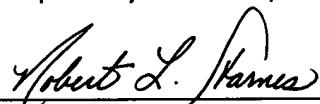
Roan, Fan *et al.*, Judkins *et al.*, Rogols *et al.*, and Stevens *et al.*, alone or in combination, do not teach or suggest methods for producing a consumable product from potatoes, comprising: (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of a glucose oxidase, laccase, lipase, pectinase, pentosanase, protease, and transglutaminase, and (b) processing the enzyme-treated potato substance to produce a potato product, and further comprising coating the potato substance with a starch and/or a hydrocolloid, as claimed herein. It was, therefore, improper to combine Fan *et al.* with Judkins *et al.*, Rogols *et al.*, and/or Stevens *et al.*.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and withdrawal of the rejection.

#### VI. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,



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